

# Package: altR2 (via r-universe)

September 11, 2024

**Version** 1.1.0

**Title** Alternative Estimators to Adjusted R-Squared

**Description** Provides alternatives to the normal adjusted R-squared estimator for the estimation of the multiple squared correlation in regression models, as fitted by the `lm()` function. The alternative estimators are described in Karch (2020) <[DOI:10.1525/collabra.343](https://doi.org/10.1525/collabra.343)>.

**Depends** R (>= 3.5.0)

**Imports** gsl (>= 1.9-10.3), methods, purrr (>= 0.3.2)

**Suggests** testthat (>= 2.1.0), MASS (>= 7.3-51.1)

**License** GPL-2

**URL** <https://github.com/karchjd/altR2>

**BugReports** <https://github.com/karchjd/altR2/issues>

**LazyData** true

**RoxygenNote** 7.3.2

**Repository** <https://karchjd.r-universe.dev>

**RemoteUrl** <https://github.com/karchjd/altR2>

**RemoteRef** HEAD

**RemoteSha** ef6e554c6e1028932540a416626b1c17c6ba5590

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altR2

*Obtain estimates of the multiple squared correlation*

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**Description**

Returns different estimates of the multiple squared correlation.

**Usage**

```
altR2(lmOut)
```

**Arguments**

lmOut                    object of class "lm" as returned by the function `lm`

**Value**

A named vector with the different estimates

**Examples**

```
## Annette Dobson (1990) "An Introduction to Generalized Linear Models".  
## Page 9: Plant Weight Data.  
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)  
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)  
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))  
weight <- c(ctl, trt)  
lm.D9 <- lm(weight ~ group)  
estimates <- altR2(lm.D9)
```

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estimate\_adj\_R2*Obtain estimates of the multiple squared correlation*

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**Description**

Returns different estimates of the multiple squared correlation.

**Usage**

```
estimate_adj_R2(Rsquared, N, p)
```

**Arguments**

Rsquared                R-squared value  
N                        Number of observations  
p                        Number of predictors

**Value**

A named vector with the different estimates

**Examples**

```
## Annette Dobson (1990) "An Introduction to Generalized Linear Models".  
## Page 9: Plant Weight Data.  
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)  
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)  
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))  
weight <- c(ctl, trt)  
lm.D9 <- lm(weight ~ group)  
estimates <- estimate_adj_R2(summary(lm.D9)$r.squared, length(weight), 1)
```

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